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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/748,012 | 12/27/2000 | Hiroyuki Nakano | 001745 | 4666 |

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 04/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,012

Applicant(s)

NAKANO, HIROYUKI

Examiner

Marc Jimenez

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/27/1999. It is noted, however, that applicant has not filed a certified copy of the Japan 11-369952 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 3, 4, and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by Satoh et al. (5,547,742).

Satoh et al. teach a core (col. 9, lines 11 and 58), a primer layer (col. 9, line 14) applied on the periphery of the core (col. 9, lines 11 and 58), and a fluororesin top layer (col. 9, lines 16-17 and 61-62) applied on the periphery of the primer layer (col. 9, line 14), wherein glass particles (col. 10, line 49) are mixed into at least one of the primer layer (col. 9, line 14) and the top layer (col. 9, lines 16-17 and 61-62). The glass particles (col. 10, line 49) are mixed into only the top layer (col. 9, lines 16-17 and 61-62) in a weight ratio of 1% or more (col. 10, lines 50-53). The top layer (col. 9, lines 16-17 and 61-62) includes PFA (col. 4, line 5).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh et al.

Satoh et al. teach the invention cited above with the exception of the glass particles being mixed into only the primer layer.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the glass particles being mixed only to the primer layer is clearly a matter of design choice because applicant has not disclosed that mixing glass particles only to the primer layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with glass particles in the top layer as taught by Satoh et al. or with the claimed glass particles being mixed only to the primer layer because glass particles placed in either the top layer only or the primer layer only perform the same function of reinforcing the layers.

6. **Claims 1-4, 7, and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cerrah (6,061,545) in view of Satoh et al.

Cerrah teaches a core 40 (col. 5, line 33), a primer layer (col. 5, line 36) applied on the

Art Unit: 3726

periphery of the core **40**, and a fluoro-resin (col. 6, lines 16-22) top layer **39** applied on the periphery of the primer layer (col. 5, line 36).

Although Cerrah teaches that reinforcing fillers are incorporated into the layers (col. 7, lines 36-42), Cerrah does not specifically teach the use of glass particles.

Satoh et al. teach the use of glass particles as a reinforcing filler (col. 3, lines 53-67) in a fluoro-resin layer.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cerrah with glass particles, in light of the teachings of Satoh et al., in order to provide a reinforcing material that is light weight and can withstand high temperatures. Cerrah teaches that the thickness of the primer layer can be as little as 3 micrometers (col. 8, line 35-37) and the thickness of the fluoro-resin outer layer can be as little as 5 micrometers (col. 9, line 55).

With respect to Claim 2, Cerrah/Satoh et al. teach the invention cited above with the exception of the glass particles being mixed only to the primer layer. It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the glass particles being mixed only to the primer layer is clearly a matter of design choice because applicant has not disclosed that mixing glass particles only to the primer layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with glass particles in the top layer as taught by Satoh et al. or with the claimed glass particles being mixed only to the primer layer because glass particles placed in either the top layer only or the primer layer only perform the same function of reinforcing the layers.

7. **Claims 5, 6, and 9-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh et al. in view of Yakushiji (JP 58017872).

Satoh et al. teach the invention cited above with the exception of having glass particles mixed into the primer layer.

Yakushiji teaches mixing glass particles (constitution, lines 5-12) into a primer layer 2.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Satoh et al. with glass particles mixed into the primer layer, in light of the teachings of Yakushiji, in order to reinforce the primer layer.

With respect to Claims 9-15, Satoh et al./Yakushiji teach the invention cited above with the exception of having a fluoro-resin overtop layer applied on the peripheral surface of the top layer. It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the use of an additional fluoro-resin overtop layer is clearly a matter of design choice because applicant has not disclosed that using a fluoro-resin overtop layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well without an overtop layer as taught by Satoh et al. or with the claimed fluoro-resin overtop layer because applicant states that the same results are achieved with or without the overtop layer (see applicant's specification page 17, lines 23-29 to page 18).

8. **Claims 5, 6, and 9-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cerrah in view of Satoh et al. as applied to **Claim 1** above, and further in view of Yakushiji.

Art Unit: 3726

Cerrah/Satoh et al. teach the invention cited above with the exception of having glass particles mixed into the primer layer.

Yakushiji teaches mixing glass particles (constitution, lines 5-12) into a primer layer 2.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cerrah/Satoh et al. with glass particles mixed into the primer layer, in light of the teachings of Yakushiji, in order to reinforce the primer layer.

Note that Cerrah teaches the use of an additional overtop layer (col. 7, lines 33-36) on the peripheral surface of the top layer devoid of glass particles. However, Cerrah does not teach that the use of fluoro-resin including PFA as the top layer. It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the use of fluoro-resin as the overtop layer is clearly a matter of design choice because applicant has not disclosed that using a fluoro-resin overtop layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the overtop layer taught by Cerrah or the claimed fluoro-resin overtop layer because both overtop layers cover the top layer.

Contact Information

9. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

Art Unit: 3726

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**.

The examiner can normally be reached on **Monday-Thursday and the second Friday of the bi-week, between 9am-6pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

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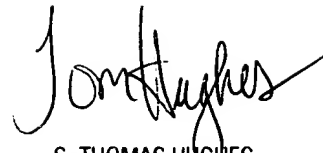
Application/Control Number: 09/748,012

Page 8

Art Unit: 3726

MJ

April 3, 2002



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